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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,280	12/15/2003	Lin Lin	38898-0054	1770

7590 07/21/2006

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CANADA

EXAMINER

CHOI, WOO H

ART UNIT	PAPER NUMBER
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2189

DATE MAILED: 07/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/734,260	<b>Applicant(s)</b> LIN ET AL.	
	<b>Examiner</b> Woo H. Choi	<b>Art Unit</b> 2189	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9, 10 and 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 8 and 11 - 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Parker (US Patent No. 6,535,949).
3. With respect to claims 1, 4, 5, 11 and 14, Parker discloses a memory device (figure 1, 24) for storing data, said data including metadata, said memory device comprising:
  - a static volume comprising a plurality of static blocks (col. 11, lines 7 – 17, logs, or alternatively data item, see figure 4 and col. 8, 21 – 27, 58 – 67) and each of said static blocks comprising a plurality of sectors (figure 3, a flash erase block comprise multiple sectors);
  - a dynamic volume comprising a plurality of dynamic blocks (col. 11, lines 7 – 17), and each of said dynamic blocks comprising a plurality of sectors (figure 3,);
  - each of said dynamic blocks having one of said sectors allocated for writing and reading metadata (figure 4, 56, a sector containing a version number), and said remaining sectors in said dynamic block being available for writing and reading data; and

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each of said static blocks having one or more sectors for writing and reading metadata (56), said remaining sectors in said static block being available for writing and reading data.

4. With respect to claims 2, 3, 6, 7, 12, 13, 15 and 16, erasability and movability of flash memory blocks are inherent features of flash memories and are also explicitly disclosed by Parker (col. 10, lines 45 – 49).

***Response to Amendment***

5. Claim 4 has been amended to overcome prior rejections under 35 USC 101. Corresponding rejections are withdrawn.

***Response to Arguments***

6. Applicant's arguments, see page 9, lines 4 – 16, filed May 30, 2006, with respect to rejections based on Soemo reference (US 2003/0078907) have been fully considered and are persuasive. Corresponding rejections have been withdrawn.

7. Applicant's arguments filed May 30, 2006, with respect to Parker reference (US Pat. 6,535,949) have been fully considered but they are not persuasive. The Examiner disagrees with Applicant that Parker does not teach the claimed limitations. In fact, Parker reference teaches the claimed limitation in several ways. Parker teaches multiple logs (col. 3, lines 24 – 39). Each log reads on the claimed block since, as currently claimed, a block is an arbitrary collection of sectors. As shown in figure 4, each log has a data item containing a version number (see also

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col. 21 – 27, 58 – 67). A sector containing the version number meets the metadata requirements of the claim. Finally, a collection of “hot” and “cold” logs read on the dynamic and static volumes, each comprising a plurality of blocks (logs).

The examiner also notes that multiple versions of a data item (a collection of records) each with its own version number coexist in a single log (see figure 4 and col. 8, 21 – 27, 58 – 67). A version of a data item reads on the claimed block with each of “hot” and “cold” logs reading on the claimed dynamic and static volumes.

Parker also discloses that each record is of variable lengths (col. 8, line 5). A large record, such as one for an e-mail (col. 4, line 32) reads on a block that comprises a plurality of sectors. Each record consists of metadata and data (see figure 9). A sector(s) containing the metadata meets the claimed metadata sector requirements while sectors containing the data portion of the record meet the remaining sectors requirements of the claim.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Woo H. Choi whose telephone number is (571) 272-4179. The examiner can normally be reached on M-F, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Reginald Bragdon can be reached on (571) 272-4204. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*whc*  
whc

July 17, 2006

*Mano Padmanabhan*  
7/17/06

MANO PADMANABHAN  
SUPERVISORY PATENT EXAMINER